# High School Content Expectations

## CAREER AND TECHNICAL EDUCATION STANDARDS

Agriculture, Food and Natural Resources Cluster
Architecture and Construction Career Cluster
Arts, A/V Technology and Communications Cluster
Business Management and Administration Career Cluster
Education and Training Career Cluster
Finance Career Cluster
Government and Public Administration Career Cluster
Health Science Career Cluster
Hospitality and Tourism Career Cluster
Human Services Career Cluster
Information Technology Career Cluster
Law, Public Safety, Corrections and Security Career Cluster
Manufacturing Career Cluster
Marketing Career Cluster
Science, Technology, Engineering and Mathematics Career Cluster
Transportation, Distribution and Logistics Career Cluster

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MICHIGAN Department of Education
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# Welcome to Michigan's High School Career and Technical Education Standards and Expectations

## Why Develop Content Standards and Expectations for High School?

In 2004, the Michigan Department of Education embraced the challenge to initiate a "high school redesign" project. Since then, the national call to create more rigorous learning for high school students has become a major priority for state leaders across the country. The Cherry Commission Report highlighted several goals for Michigan, including the development of high school content expectations that reflect both a rigorous and a relevant curricular focus. Dovetailing with this call to "curricular action" is Michigan's legislative change in high school assessment.

The reauthorization of the Carl D. Perkins Act aligns Career and Technical Education (CTE) programs with uniform standards, a focus on student outcomes, and accountability measures. The Act requires that CTE programs of instruction demonstrate that students receive rigorous instruction in both academic and technical skills and that instruction is delivered through programs of study that prepare students for postsecondary education.

A significant component of the Act is the requirement to measure technical skill achievement through the use of assessments at the completion of a CTE program. To meet this mandate, it is necessary for CTE programs in Michigan to use common standards in CTE programs of instruction.

## An Overview

Technological advances and global competition have transformed the nature of work. Tomorrow's jobs will require more knowledge, better skills, and more flexible workers than ever before. Tomorrow's workers must be prepared to change jobs and careers several times, continually updating their knowledge and skills. To prepare today's students for tomorrow, schools are working to help students achieve in challenging subjects. One key approach to this goal is to provide students with relevant contexts for learning. Career clusters link what students learn in school with the knowledge and skills they need for success in college and careers.

## Understanding the Organizational Structure

In 2005, CTE teachers were asked to align their program curriculum to the Career Clusters model developed by the United States Department of Education. The 16 Career Clusters include broad statements specifying the foundational knowledge and skills required of learners/workers in order to demonstrate competence in a given career. The knowledge and skills represented within each cluster focus on the holistic blend of technical, academic and employability skills and provide an organizational framework for instruction. They also provide a common language for educators and business and industry partners to describe learner/worker expectations.

## Beliefs

Career clusters identify pathways from secondary school to two- and four-year colleges, graduate school, and the workplace, so students have a clear understanding of the education they need for their future careers. This connection to future goals motivates students to work harder and enroll in more rigorous courses. The16 broad career clusters help students enhance the link between the knowledge they acquire in school and the skills they need to pursue their dreams. Without limiting students, career clusters help them focus on an area of interest or a possible career path.

**High schools** can be organized around career clusters to prepare students to meet the demands of postsecondary education and the expectations of employers.

**Educators** can use a curriculum framework that can be adapted to meet local needs. Assessments will be developed for each cluster, which educators can use to gauge how well they are meeting the academic and career needs of all students, regardless of their interests or employment goals.

**Guidance counselors** can use career clusters to help students explore options for the future. Current information on the academic, technical, and college requirements students need for a wide range of careers can be found in the current Career Clusters Knowledge and Skills and Career Clusters Plans of Study.

**Employers and industry groups** can partner with schools to contribute to the development of high academic standards that help students prepare for work and help workers keep their skill up-to-date. Employers gain workers prepared to learn new skills, adjust to technological change, and advance in their careers.

**Parents** can learn what academic and technical courses their children need for college and a variety of career fields. Clusters and the high standards that go with them reassure parents that their children will be fully prepared for college and the workplace.

**Students** can use career clusters to investigate a wide range of career choices. The career cluster approach makes it easier for students to understand the relevance of their required courses and helps them select their elective courses more wisely.

CTE draws its curriculum from the workplace. Standards for CTE programs must remain fluid and flexible. The State Career Clusters are revalidated periodically. As technological advancements and changes in processes and practices take place within business and industry, teachers must be poised to make adjustments to their instruction. Continuous communication with members of business and industry advisory committees is critical so that programs remain up-to-date with the needs of employers.

At the cluster level, the knowledge and skill statements are very broad and basic. The further a student travels in a career pathway, the more specialized the instructional content becomes. Therefore, each cluster provides the framework on which to build CTE instructional programs in Michigan. Using the clusters as the base, other Michigan standards are also included to provide a robust program of instruction.

The additional standards within each CTE program include the High School Content Expectations (where they are naturally embedded in the curriculum), the Michigan Career and Employability Skills, the Michigan Technology Education Standards, and Technical Skills Standards specific to each CTE program. The result is a comprehensive package of skills expectations that are common among instructional areas. The standards give uniformity throughout programs, supply consistent expectations for teaching and learning, and provide a foundation from which to select assessment options over the next few years.

**Agriculture, Food and Natural Resources Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/AG-128-KSCHART.pdf

**Architecture and Construction Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/AC-132-KSCHART.pdf

**Arts, A/V Technology and Communications** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/ARTS-139-KSCHART.pdf

**Business Management and Administration Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/BA-120-KSCHART.pdf

**Education and Training Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/ET-159-KSCHART.pdf

**Finance Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/FN-108-KSCHART.pdf

**Government and Public Administration Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/GV-147-KSCHART.pdf

**Health Science Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/HS-153-KSCHART.pdf

**Hospitality and Tourism Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/HT-174-KSCHART.pdf

**Human Services Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/HUM-176-KSCHART.pdf

**Information Technology Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/IT-102-KSCHART.pdf

**Law, Public Safety, Corrections and Security Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/LAW-114-KSCHART.pdf

**Manufacturing Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/MFG-166-KSCHART.pdf

**Marketing Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/MKT-195-KSCHART.pdf

**Science, Technology, Engineering and Mathematics Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/STEM-169-KSCHART.pdf

**Transportation, Distribution and Logistics Career Cluster** http://www.careerclusters.org/resources/pos_ks/FoundationKSCharts/2008/TDL-189-KSCHART.pdf

## Curriculum and Assessment

This document is intended to support conversations at the school and district levels that result in rigorous and relevant curriculum incorporating these content expectations. The expectations should be addressed recursively and with increasing complexity throughout the high school career and technical education curriculum.

***As stakeholders (e.g., teachers, administrators, school board members, parents, community members, students, local legislative representatives) work with these standards, they should consider the following questions:***

- How are these content standards and expectations reflected in our curriculum and instruction already?
- Where do we need to strengthen our curriculum and instruction to more fully realize the intent of these standards and expectations?
- What opportunities do these standards and expectations present to develop new and strengthen existing curriculum, leading to instructional excellence and college/workplace readiness?
- How do we implement these standards and expectations taking into account what we know about our students, school, and community?
- How will we assess the effectiveness with which our students and schools are meeting these standards and content expectations?
- How can we use school-based assessments (e.g., student portfolios, school-based writing assessments, teacher or classroom research, district-level assessments) to make data-driven decisions about teaching and learning?

Through conversations about questions such as these, and building upon the multitude of existing strengths in our current high schools, voices of all stakeholders will participate in the important and continuing process of shaping instructional excellence in Michigan schools and preparing Michigan students for college and the workplace.